Plan Title:	**Foreign Trade Automated Information and Statistics**
Plan Number:	**CB-EF-94-02-E**
Plan ID:	**IT**

PART I - INFORMATION TECHNOLOGY ARCHITECTURE PLAN

1. Information Requirements

The Foreign Trade Division (FTD) has the primary responsibility for the collection, compilation, and presentation of comprehensive foreign trade data. It is the sole source of the official statistics on United States merchandise trade with foreign countries providing both macro- and microdata on U.S. exports, imports, and related transportation. In fulfilling its responsibilities, the FTD provides collection and processing services to other government agencies, private contractors, and public sector organizations; and provides for content design, analysis, and dissemination of both monthly and annual foreign trade statistics.

The work performed by the FTD encompasses three major programs or functional areas, i.e., Import Statistics, Export Statistics, and Trade Monitoring. It includes data analysis as well as collection methodologies and data processing functions. Although the nature of the primary collection, analysis, and processing tasks dictate that responsibilities often cross functional boundaries, the professionals within each area work to create synergistic environments that ensure the data and reports produced by the FTD maintain the current high standards of timeliness, accuracy, and information. The FTD spends a great deal of time and manpower to identify present and potential customers (data users), determine their needs and expectations, and deliver quality data products and analysis to help build and evaluate informed public policies.

IMPORT STATISTICS

This major program compiles monthly foreign trade import statistics from information filed with the U.S. Customs Service. Import statistics are compiled for shipments valued over $1250 except for selected commodities valued over $250. Data for shipments valued under $1251 (under $251 where applicable) are developed for individual countries through a statistical estimating procedure. The monthly and cumulative year-to-date statistics summarize merchandise imports in terms of commodity classifications of the Harmonized Tariff Schedules of the United States Annotated, by country of origin, and by district of entry. The merchandise imports summary statistics will be adjusted to a Balance of Payments basis using data provided by the Bureau of

Economic Analysis (BEA), combined with imports of services statistics also provided by the BEA, and published in a joint Census Bureau and BEA press release.

PROGRAM OUTPUT	SAMPLE SIZE	UNIVERSE
Monthly and Annual Import Trade Statistics	All transactions over $1250 (over $250 where applicable)	1,877,000 records per month

Data User	Use
Bureau of Economic Analysis, Council of Economic Advisers, Federal Reserve Board, and Department of Treasury	Develop the import components of the merchandise trade figures for the balance of payments and GDP accounts.
U.S. Trade Representative	Negotiate and measure the effect of tariff and trade concessions under the General Agreement on Tariffs and Trade.
U.S. Department of Commerce	Implement and monitor international agreements such as the U.S./Canadian Free Trade Agreement as well as bilateral agreements on quotas for textiles, steel, meat, footwear, and television sets.
U.S. International Trade Commission	Measure the effect of U.S. Tariffs on import levels. Measure effect of import trade on the U.S. market and domestic industry.
Private Sector	Analyze product and market development, share-of-the-market, and market penetration.
Government and Non-Government Transport Industry	Vessel and air data to measure market share, competitive status, plan promotional activities, and need for additional new types of facilities.

EXPORT STATISTICS

This major program compiles monthly export foreign trade statistics from export documents collected by the U.S. Customs Service and from information provided electronically directly to the FTD by exporters, freight forwarders, and carriers. This program also includes automated data on U.S. exports provided by Canada under a program of data exchange between U.S. and Canadian agencies. This export information covers all shipments individually valued over $2,500

for all countries; however, the division estimates data for shipments valued under $2,500 for all individual countries. The monthly and cumulative year-to-date statistics summarize merchandise exports in terms of commodity classifications of Schedule B "Statistical Classification of Domestic and Foreign Commodities Exported From The United States," by country of destination, and by district of exportation. The merchandise exports summary statistics are adjusted to a Balance of Payments basis using data provided by the BEA, combined with exports of services statistics also provided by the BEA, and published in a joint Census Bureau and BEA press release.

PROGRAM OUTPUT	SAMPLE SIZE	UNIVERSE
Monthly and Annual Export Trade Statistics	All transactions over $2500 per month	1,350,000 records per month

Data User	Use
Bureau of Economic Analysis, Council of Economic Advisers, Federal Reserve Board, and Department of Treasury	Develop the export components of the merchandise trade figures for the balance of payments and GDP accounts.
U.S. Department of Agriculture	Monitor, evaluate, and plan agricultural development programs and quotas.
U.S. Department of Commerce	Implement and monitor international agreements such as the U.S./Canadian Free Trade Agreement; promote export growth through the export promotion program. Monitor and control exports on national security, foreign policy, and short supply commodities.
U.S. Trade Representative	Conduct trade negotiations under the General Agreement on Tariffs and Trade.
Congress	Monitor agency programs relevant to export expansion, quotas, and controls.
Private Sector	Employ the data in share-of-the-market analyses and market penetration studies; determine marketing policies and strategies.

Government and Non-Government Transport Industry	Vessel and air data to measure market share, competitive status, plan promotional activities, and need for additional new types of facilities.

THE EXPORT AND IMPORT STATISTICS ADDRESSED RESPECTIVELY, BY SECTION, PROVIDE THE BASIS FOR DERIVING THE OFFICIAL UNITED STATES MONTHLY AND ANNUAL MERCHANDISE TRADE BALANCE, I.E., EXPORTS MINUS IMPORTS EQUALS EITHER A TRADE SURPLUS OR A TRADE DEFICIT.

Both the Import and Export Statistics Programs generate specific information that is made available to the public through an official Press Release Program. Due to the impact this data might possibly have on world financial markets, the date(s) for these Press Release opportunities are determined up to a year in advance. In view of this schedule, the data generated by these programs are considered to be extremely time-sensitive since failure to meet the official release date would be damaging to the integrity of, and public confidence in, the Department of Commerce.

TRADE MONITORING

This major program covers the FTD's responsibilities, through the Bureau of the Census, under the Trade Act of 1974; particularly Section 608 (Uniform Statistical Data on Imports, Exports, and Production), Title V (Generalized System of Preference) and Section 282 (Trade Monitoring System). The commodity classification systems are revised on a regular basis, modified to reflect changing statistical needs, and to improve comparability of trade and domestic production data as well as the comparison of trade data between the United States and other countries.

FOREIGN TRADE DIVISION
PROGRAM DEVELOPMENT PLAN

This Program Development Plan (PDP), in general, involves acquiring equipment and software to support the final stages of the ongoing migration from the Unisys mainframe environment, to enhance current computer processing, and to support the further automation of manual processing operations involved with the collection and compilation of foreign trade statistics. In particular, the extension or improvement of current automation techniques is stressed.

Since the FTD has identified a number of current operations for automation (or improved automation), efforts are being taken to minimize the variety of hardware and software solutions needed and to remain in step with the Bureau's corporate philosophy of open systems concepts and designs. By fostering an environment that will define the processing framework for all data collection, tabulation, and dissemination of routine and ad hoc foreign trade statistical efforts, we will explore the feasibility of using standard hardware and software across most, if not all,

applications. In taking this direction, we expect to significantly improve homogeneity and consistency among similar and related data extracts, especially in the area of ad hoc report creation and public and private sector response capability.

AUTOMATED EXPORT SYSTEM (AES)

This major project is being designed, with input from the export trade community and partnership government agencies, as an information gateway to allow exporters, freight forwarders and carriers to file in a single transmission via one conduit all export documentation required by the government. AES will streamline the government's export control and statistics gathering functions while simplifying the export documentation required.

INTERNET

This major project is a result of:

- The issuance of Vice President Gore's National Performance Review item on the expansion of the electronic availability of census data.
- The issuance of President Clinton's Executive Order on Customer Service Standards.
- The wide-spread acceptance by the public and private sectors of the Internet as a data access and dissemination tool.

This project's primary focus is the presentation of a coordinated and cost-effective strategy for disseminating foreign trade data. All information available to customers of the FTD will eventually be available via the Internet and will consist of six general classes of information, i.e., microdata, aggregated data, organizational data, publications and analysis, software products, and custom software applications. The FTD's efforts are guided by the key goals, objectives, and action plans that are identified by the Bureau's Strategic Planning Process and through cooperative efforts with the Census Bureau's Data Access and Dissemination System (DADS) staff.

CONVERSION TO THE WINDOWS DESKTOP OPERATING SYSTEM

This project will allow the division to avoid the overhead costs associated with supporting multiple desktop operating systems and will provide the opportunity to implement a structured standard methodology for software systems application and access. In meeting the Bureau's requirements for Open Systems, this effort will incur minimal learning curve(s) for division staff in the implementation of division processes and will result in fewer defects while expediting operational production readiness of production, application, and access systems.

CONVERSION TO SAS

This planned project will allow the division to avoid the overhead costs associated with supporting multiple analytical and data manipulation systems and will provide the opportunity to implement a structured standard methodology for data analysis, processing, and access. This effort will incur a tremendous learning curve(s) for involved division staff and result in the need for an extraordinary degree of additional training. However, the implementation of SAS for primary division analytical and processing applications will allow the division to meet the Bureau's requirements for Open Systems implementations. We are confident this will result in fewer defects while expediting operational readiness of production data, application, and access systems.

2. Planned Processing and Telecommunications Architecture

The FTD is presently operating under a mandate to migrate all current foreign trade data processing to a replacement platform. In order to determine the focus of our efforts, the division completed a Benefits/Costs Analysis (B/CA) in June 1994. The executed B/CA identifies and quantifies the costs and benefits of three alternatives for satisfying the processing requirements of the FTD, while identifying and quantifying costs and benefits of redesigning the processing, analytical, and dissemination systems. The B/CA also provides a detailed overview of the planned processing architecture the FTD will seek to employ for the relevant ten-year period.

Since the pending decommissioning of the current Unisys mainframe system provided the impetus for the examination of alternative processing systems for foreign trade data, the division concluded that any major change in the current data processing environment would facilitate an examination of the overall data processing environment and the current methodology implemented. This evaluation provided the opportunity to enhance the overall foreign trade data processing system through a comprehensive concept and methodology redesign. The major areas of effort brought about by the migration process have been in the development of new data structures and tables, in the conversion/reprogramming of the existing edit system, and in the redesign/reprogramming of the I/O interfaces that support the analytical environment.

To meet the migration requirements we have designed an extensive system of networked and standalone microcomputers, file storage servers, printers, peripheral systems (i.e., CD-ROM, 4mm DAT subsystems, 3480 cartridge subsystems, etc.), software, and interconnectivity programs and tools to provide client/server services to meet the requirements mandated by the current migration concept. We have implemented full microcomputer client/server capability, advanced automated data capture concepts, and LAN processing availability to all branches of the FTD for the purposes of meeting the requirements brought about by the migration from the Unisys mainframe to the selected alternative represented by a networked client/server environment.

Division professionals are able to exchange data and information between internal and external organizational units. Division staff are able to, from their desktop workstations, access data composed on other servers or workstations and either modify it as required, read it, manipulate it statistically, or incorporate the data into larger databases and/or reports. The increased ability to exchange data and text between different branches and subject matter areas has demonstrated great cost savings and rewards for the entire FTD in terms of time, efficiency, and provided service.

The Census Bureau's Telecommunications Office (TCO) has upgraded the data handling capacity of the FTD's local area/communications network (with an installed but yet to be activated twisted pair cable plant), in accordance with the Telecommunications portion of the Enterprise Processing Resources (EPR) Program Development Plan (PDP) CB-IT-94-01-E. This was accomplished in response to the increased traffic resulting from our expanded end-user interactive analytical capability, the Unisys migration process, and our office automation efforts. However, fiscal considerations have delayed the final implementation of the twisted pair upgrade and we continue to operate in the obsolete thinnet environment that has been the mainstay of the division for the last eight years. With centralized data bases, file, and print services continually being incorporated into the automated office environment, we desperately need the capability and capacity of the installed twisted pair cable plant to be activated.

The current methods and techniques used to process foreign trade data represent our fall-back or backup position and can be effective with little modification. For additional information on alternative architectures, please see the previously referenced B/CA.

Costs relative to the service and support of the central mainframe computer complex are provided by the Census Bureau's Information Technology area and therefore will not be included in this PDP. It should be noted however, that the division will continue to rely on the Unisys mainframe, or the mid-decade replacement platform as designated by the Bureau, for the support of our monthly 9-track tape copy and distribution program.

The wide area network (WAN) and the local area network (LAN) supporting Census Bureau (non-foreign trade) operations are managed by the Census Bureau's Telecommunications Office and therefore related telecommunications costs will not be addressed in the PDP.

Automation Plans

The FTD's automation plan focuses on the following objectives:

CORE IMPORT AND EXPORT PROCESSING

Monthly core FTD processing is accomplished in a multi-platform environment using a Unisys mainframe and distributed microcomputers. For current and future processing of core foreign trade data, the FTD will complete the ongoing migration from the Unisys mainframe to one of

distributed processing completely implemented in our networked microcomputer client/server environment.

LOCAL AREA NETWORK TECHNOLOGY

A Bureau-wide Twisted-Pair/Fiber-Optic LAN connects the centralized computing resources with microcomputers, workstations, and other end-user devices. The Bureau's TCO has installed a parallel LAN upgrade based in twisted pair technology but this new LAN has not been implemented/activated in accordance with the Telecommunications portion of the EPR PDP CB-IT-94-01-E.

Since the FTD network staff will continue primary support of our LAN until the installed twisted pair upgrade is activated, we will continue routine skills maintenance training of our LAN support staff under the guidance of the Census Bureau TCO. The current communications requirements of the division require that our support staff maintain a diversity and currency in knowledge, experience, and versatility enough to adapt to an ever changing environment.

The FTD has established a Novell Network Operating System (NOS) based LAN which serves the Suitland and Jeffersonville sites.

CD-ROM TECHNOLOGY

The FTD experiences continual data storage and dissemination problems since foreign trade data increases at the rate of fourteen billion characters per year. The implementation of additional "one-off" CD-ROM creation capability(s) has solved this persistent problem. Since it is becoming easier and more cost-effective to produce CD-ROM's, we will develop in-house systems, in cooperation with Administrative and Customer Services Division (ACSD), based in LAN technology(s) to satisfy our customer's as well as internal demands for more useful and flexible data products and storage.

INTERNET

The project is designed to present a coordinated and cost-effective strategy for disseminating foreign trade data. To effect quality improvements that will result from the continued promotion of the Census Bureau, the FTD, and the products and services offered by both organizations, the FTD has assigned two senior technical staff members, on a part-time basis, to the Bureau's DADS staff. Through these two senior staff members, the FTD's interests and efforts will be guided in line with the key goals, objectives, and action plans that are identified by the Bureau's Strategic Planning Process.

The FTD will utilize the Internet to enhance the promotion of the division and its products and services. The implementation of communication tools that will allow our customers to contact the appropriate person or office, order our products and services, and allow for customer-driven product generation will enable the division to contribute to the facilitation of the stated Internet goals and initiatives of the Bureau.

ELECTRONIC DATA INTERCHANGE

Historically, the major activity of the FTD was collecting and processing Import Entries (Table 1) and Export Declarations (Table 2). This entailed the support of a large clerical and keying staff in Jeffersonville, Indiana.

TABLE 1. Foreign Trade - Imports Statistical Month Processing

1995	DPD Records	ABI Records	Sponsor Records	Total Records	Electronic Records	% Electronic Records
12 Month Total	585,424	21,522,949	421,138	22,529,511	21,944,087	97.4%
Month Average	48,785	1,793,579	350,957	1,877,459	1,828,674	97.4%

TABLE 2. Foreign Trade - Exports Statistical Month Processing

1995	DPD Records	Canadian Records	AERP Records	Total Records	Electronic Records	% Electronic Records
12 Month Total	6,312,923	5,837,544	4,035,264	16,185,731	9,872,808	61.8%
Month Average	526,077	486,462	339,781	1,348,811	822,734	61.0%

We will seek to expand electronic data exchange capabilities with our internal and external customers. Currently joint projects for the electronic exchange of information are in place with the U.S. Customs Service.

AUTOMATED COMMERCIAL SYSTEM (ACS): The Customs Automated Commercial System (ACS) is a computer-telecommunications system linking automated participants (importers, brokers, carriers, other government agencies) with Customs in the exchange of import trade data.

Under ACS Customs intends to use both a mainframe and a client server environment. The ACS user interface will execute on PC Workstations within the Microsoft Windows environment. ACS will build its external system interfaces using the Distributed Computing Environment (DCE) approach developed by the Open System Foundation (OSF) Incorporated.

AUTOMATED BROKER INTERFACE (ABI): The Automated Broker Interface (ABI) is one of the many modules of ACS. ABI is a system which permits customhouse brokers and importers to interface directly with Customs computer to transmit entry data regarding merchandise being imported. Upon transmission of this data, the data are edited by Customs and by Census. The broker receives verification from Customs that the estimated duty/tax calculation and all other data are correct. If the entry data are incorrect or if certain information is missing, the broker is then able to correct the entry and/or provide the additional information before the merchandise arrives.

AUTOMATED EXPORT SYSTEM (AES)

America's future depends on her ability to compete successfully in the international marketplace. The current Administration is committed to developing a National Export Strategy to ensure a level playing field for all American businesses. Toward that goal, the FTD is working with the U.S. Customs Service to develop an Automated Export System (AES) to provide a fully automated environment in which to collect the necessary information to ensure export facilitation and compliance, collect required trade statistics and harbor maintenance fees, and provide improved customer service.

This major project will improve and expand the quality of export statistics to aid in achieving the Administration’s National Export Strategy. Quality improvements will result from a new electronic data collection system (Automated Export System or AES) and will have a direct positive impact on the competitiveness of U.S. companies.

Specifically, AES is being designed with input from the export trade community and partnership government agencies. The intent is to provide an information gateway to allow exporters, freight forwarders, and carriers to file, in a single transmission via one conduit, all export documentation required by the government. AES will streamline the government's export control and statistics gathering functions while simplifying the export documentation required.

DATA PREPARATION DIVISION (DPD) AUTOMATION

The DPD Processing System encompasses mail receipts, document sorts, pre-key clerical review, microfilm, data entry, data verification, post-key clerical review, and post-edit clerical review. Over 24,000 import documents and 460,000 export documents are captured each month and processed using complex clerical and data entry systems. Transmissions of DPD keyed batches are one of several automated inputs into our monthly press release figures.

We will focus on the implementation of automation techniques to eliminate the large amount of paper reference materials, to provide computer programs to calculate missing values and to calculate ratios and compare these to acceptable ranges within the edit masters, to provide the required resources to permit the clerical unit to interface directly with the data keyed under the new Key Entry III program, and to transfer functions currently performed by analysts in the FTD to clerical staff in DPD.

PUERTO RICO TRADE DATA STAFF (PRTDS)

The FTD has a reimbursable project, locally staffed by FTD personnel, ongoing in San Juan, Puerto Rico involving the collection and capture of domestic trade data between the United States and Puerto Rico. The trade statistics collected as a result of the submission of export documents are not part of the balance of trade statistics but are published in a separate publication for its program sponsor, the Puerto Rico Planning Board.

We will upgrade the LAN by converting to the Novell NOS (v4.1) to coincide with Bureau implementations and all key entry operations will be converted to KeyEntry III, purchased by the Technology Management Office for implementation in DPD-Jeffersonville. Database processes will be converted to Clipper.

CONVERSION TO WINDOWS DESKTOP OPERATING SYSTEM

It is common knowledge that using a standard methodology for software development and access to the resultant systems results in fewer defects and expedites the production readiness of production and application systems. The current corporate trend toward larger percentages of interactive processes makes it even more imperative to adopt a standard methodology for system utilization and access.

In view of this, we will convert to Windows 95, at the desktop, for applications that can leverage its strengths with the desktop and production applications that are the most process-intensive taking advantage of the native 32-bit operating system.

CONVERSION TO SAS

SAS has been identified by the Bureau as the standard programming language for the analysis of statistical data and as such the FTD will comply with that mandate. The division will implement an accelerated intensive training program aimed at providing the relevant programming and analytical staff with the background necessary to begin operations in this environment.

ARCHITECTURE LIFE EXPECTANCY

The life of this architectural decision is intended to coincide with the previously completed Benefits/Cost Analysis submitted in June 1994. Because systems age with technological change

as well as time, the division fully expects to encounter technical, functional, and maintenance obsolescence points over the life of this architectural decision. Overall system life expectancy is ten years although we will accomplish technology replacement and/or refreshment processes, on a five year cycle, by phasing out and replacing roughly 20 percent of the operational system each fiscal year.

3. Security

Security plans and procedures (see below) to ensure privacy and security for existing systems are currently in effect and will apply to any new equipment and/or processes.

- CEN024 - FTD Commodity Detail System
- CEN025 - FTD Electronic Data Capture System
- CEN026 - FTD Monthly Press Release System
- CEN139 - FTD Import/Export Core Processing System
- CEN149 - FTD Exporter Data Base System
- CEN152 - FTD Sensitive Data on Removable Media System
- CEN170 - FTD Press Release CD-ROM System
- CEN178 - FTD Novell Local Area Network System

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PART II - ANNUAL PLAN

1. Architecture Status

Because systems age with technological change as well as time, the FTD fully expects to encounter technical, functional, and maintenance obsolescence points over the life of this architectural decision. However, we fully expect this architecture to meet our needs for the life of this document.

The division has one service contract in place for the general hardware support of the Puerto Rico Trade Data Staff program. It provides annual maintenance for all microcomputer based systems located in Puerto Rico at an annual cost (FY 1997) of ~$5000.

2. IT Objectives

The IT objectives for fiscal year 1997 are several and generally involve the extension or improvement of current automation techniques. The FTD will investigate both mature and leading-edge technologies which have the demonstrated potential for achieving substantial cost savings and productivity gains and which can easily be integrated into our existing distributed processing environment. We plan to explore the feasibility of using standard hardware, software, and LAN resources across most, if not all, applications.

3. Status

A. Accomplishments/Progress

CORE IMPORT AND EXPORT PROCESSING

The primary component(s), import and export cut processing, of the core system are fully migrated to an Intel-based Pentium environment and in production operation. The migration of the secondary component(s) of the core import and export system, closeout processing, is 65 percent complete (imports - 70 percent complete, exports - 60 percent complete). The migration of import and export special cost/order jobs are 85 percent complete.

The major obstacle delaying the completion of the full migration lies with large volume tape copy processing. Due to this concern we have been forced to develop and design an interim system which still has direct ties to the mainframe. This additional effort has hindered the migration process significantly.

LOCAL AREA NETWORK TECHNOLOGY

The FTD has established a Novell NOS based LAN which serves the Suitland and Jeffersonville sites. A remote LAN has been established in Puerto Rico operating under the Microsoft LanManager NOS. The ability of the FTD to perform its work is dependent upon the availability of its networked assets. Press release obligations would be met with some difficulty in the absence of the LAN but all non-press release related operations would come to a virtual standstill. As a larger percentage of the division's operational requirements have been migrated to the alternative environment, LAN utilization ratios realized have begun to routinely exceed the theoretical limits of the architecture effectively saturating the network and seriously degrading the overall operational LAN environment.

The Bureau's TCO has provided, in a parallel installation of twisted pair technology, the data handling capacity to accommodate the increased traffic resulting from our expanded end-user interactive analytical capability, the Unisys migration process, as well as our office automation efforts. However, this capability has not been made available to the division due to budgetary limitations. The implementation of this technology refreshment effort needs to be brought to a fruitful conclusion with the FTD being allowed to fully utilize the available resources.

Until the above concept is fully implemented, we will continue to utilize Etherthick coaxial backbone cable distributed throughout FTD-occupied space to carry all division processing traffic. Ethernet LAN segments connect to the division backbone by using protocol independent bridges which support all division specific LAN requirements. This configuration serves workgroup and other types of subnetwork devices such as gateways and repeaters. The network is a multi-vendor environment and includes products from 3Com, Novell, Hewlett-Packard, IBM, and others. Each vendor has provided interface support to one or more of the following protocols: XNS, IPX, MS-NET, NETBIOS, TCP/IP, NBP, LAT, and OS/I. All protocols comply with the IEEE 802.3 or Ethernet V2.0 standards and employ a Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method.

CD-ROM TECHNOLOGY

Historically, the division has experienced data storage problems since foreign trade data grow at a rate of fourteen billion characters per year. Past technological conditions allowed only two years of monthly data and five years of annual data to be utilized and then through the mainframe system at a quite prohibitive cost. This inherent cost also rendered the storage of tabulated data too expensive hence storage of foreign trade data only in its raw, detail form. In essence,

historical data were almost useless due to the excessive cost of organizing the data into a form to make them useful.

We have CD-ROM technology implemented which can store an entire month of import or export data on a single disk and have implemented like methodologies to satisfy the division's need for data storage. Current network systems support three 14-drive CD-ROM and one 7-drive CD-ROM file servers for shared use by the entire division. The division has thirty dedicated units attached to individual analytical workstations in various subject matter areas.

Titles such as the U.S. Exports and Imports of Merchandise and the U.S. Exports Commodity Classification (Schedule B), along with the software needed for the customer to help search for, extract, manipulate, and analyze targeted data, are currently available on CD-ROM to the public through a cooperative effort between the FTD and the ACSD.

INTERNET

The FTD released its new World Wide Web (WWW) homepage on November 17, 1994. This novel concept provides a "user friendly" approach to accessing the wide array of information, products, services, and data offered by the division. Since the initial implementation, there has been an average daily "hit" count in excess of 1,500 visitors and we have made this a permanent offering while incorporating all user requests for changes, additions, and access methodologies. To maintain a significant degree of homogeneity and to preclude duplicative effort(s) between the division and the Census Bureau, the FTD currently has two senior technical staff members assigned, on a part-time basis, to the Bureau's DADS staff assisting in the development of that project.

The FTD loads the current FT900 Press Release (U.S. International Trade in Goods and Services) one minute after the official public release of the data. Highlights include data tables, explanatory text, and graphics which are replaced each time the FT900 is issued. Three "Top Ten" lists, i.e., the ten countries with which the United States has the greatest trade deficit, the ten countries with which the United States has the greatest trade surplus, and the ten countries whose overall imports and exports with the United States are the greatest, are readily available and routinely updated.

Additionally, the following are available and updated on a regular basis:

- F.Y.I. - an informational segment describing the FTD, foreign trade, and the covenants associated with Title 13, United States Code.

- Past FT900 Press Release(s) (U.S. International Trade in Goods and Services).

- The Schedule B Book (Statistical Classification of Domestic and Foreign Commodities Exported From The United States) with integrated "look up" capability.

- The Schedule(s) C, D, and K in various sort orders.
- The "Guide to Foreign Trade Statistics". An informational document providing a detailed description of the FTD homepage.
- Pointer(s) to Bureau of the Census Economics Area Burgundy Book information as well as other foreign trade-related Internet sites.
- "The Correct Way." A guide to the proper completion of a Shipper's Export Declaration.
- A complete listing and detailed information about other services available from the FTD.
- A series of "test" order forms for FTD products.
- A complete listing of FTD contacts with phone numbers and e-mail addresses.
- Trade meeting schedules and announcements.
- Additional FTD reports, i.e., FT920, Reconciliations With Other Countries, Related Party Trade, Statistical Brief on Exporter Profile(s).
- A U.S. Customs Automated Exporter System (AES) Information page.
- A list of WWW pointers to other trade sites.

ELECTRONIC DATA INTERCHANGE

AUTOMATED EXPORTER REPORTING PROGRAM (AERP): Currently 97 percent of all import entries are received electronically from the U.S. Customs Service. On the export side, 293 companies are filing their export information electronically, accounting for 25 percent of exports. All export trade with Canada is received electronically resulting from the U.S.--Canadian data exchange, accounting for 36 percent of the statistical line items and 28 percent of the value. There are 44 Foreign Trade Zones submitting data directly to the division.

Current Canada processing is being accomplished in three parts: on the Census Bureau's Unisys mainframe (exports), on the Custom Service's IBM mainframe (imports), and on networked FTD microcomputers. Telecommunications problems have hampered full development of this technology within the division.

- The leased, dedicated T-1 telecommunications link connecting the FTD with the Canadian embassy is supported by a number of carrier vendors. This leads to substantial delays in line or encryption problem resolution.

- Current telecommunications technology implemented is archaic in design. Individual microcomputers with dedicated modems set at static baud rates to handle individual respondents are inherently inflexible in nature.

- The high degree of human intervention required for the overall process is cost-inefficient in both dollars and staff resources.

This program is no longer accepting new participants and is scheduled to be phased out of service in 1999 and replaced by the AES program (see later section).

AUTOMATED COMMERCIAL SYSTEM (ACS): ACS is now more than 11 years old and showing its age. Internal and external system users are demanding more functionality and processing capacity from ACS than its current mainframe architecture and data structure can provide. Making enhancements to ACS is becoming increasingly more difficult and expensive. Customs has thus begun the process of redesigning ACS.

AUTOMATED BROKER INTERFACE (ABI): The Automated Broker Interface (ABI) is one of the many modules of ACS. ABI is a system which permits customhouse brokers and importers to interface directly with Customs computer to transmit entry data regarding merchandise being imported. Upon transmission of this data, the data are edited by Customs and by Census. The broker receives verification from Customs that the estimated duty/tax calculation and all other data are correct. If the entry data are incorrect or if certain information is missing, the broker is then able to correct the entry and/or provide the additional information before the merchandise arrives.

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DATA PREPARATION DIVISION (DPD) AUTOMATION

The implementation of microcomputer technology in the clerical area of the Foreign Trade Section of DPD has been accomplished satisfying a number of goals. The elimination of the large amount of paper reference materials has reduced printing overhead costs and expedited access to required reference files. Virtually all of the FTD produced reference materials are now "on-line" and a number of functions currently performed by analysts in the FTD have been transferred to the clerical staff(s) of DPD.

Secondly, the provision of interactive software systems to calculate missing values and/or ratios and compare these, in an automated fashion, to acceptable ranges within the edit masters has improved the "per hour" number of documents the clerical staff can process. Interactive computer programs on the microcomputer system(s) to compute values based on the Schedule B Number, reported quantity or shipping weight, edit master factors, and computation of critical ratios and comparison to acceptable ranges in the edit master for high value documents for applicable commodities are currently in place.

PUERTO RICO TRADE DATA STAFF (PRTDS)

The current processing environment is based in SQL Windows with Microsoft LAN Manager as the network operating system. The system consists of six workstations and a server with backup and print capability. Programs are written in Microsoft SQL Database. A standalone bulletin board system with multimedia capability/technology has been made available for the Puerto Rico Planning Board and the exporting community.

There is diminishing FTD support for the software and network aspects of the current operation as the division is following a completely divergent path. This will necessitate a redesign of the current operational environment in order to mirror technological directions implemented within the division.

CONVERSION TO WINDOWS DESKTOP OPERATING SYSTEM

The current processing environment is based on multiple desktop operating systems, i.e., DOS (various versions), Windows, and OS/2. Parallel testing of these multiple environments has demonstrated the strengths of Window's user-interface and OS/2's 32-bit environment and we plan to concentrate on implementing Windows 95 with 32-bit extensions.

The current budget situation has precluded the consolidation of the division's processing environment into the planned Windows 95 environment thereby delaying plans for this conversion that were initiated last fiscal year.

CONVERSION TO SAS

The concept of converting to SAS for analytical purposes is a new one driven by the implementation of SAS as a Census Bureau standard. The division has provided SAS training to selected technical staff in the past but that training has been deemed obsolete due to the length of time that has passed since then. Our initial goal will be to reaccomplish relevant training in an expeditious manner as possible. The primary focus of this effort will be the conversion of all analytical activities to this environment with the gradual experimentation and migration of selected processing tasks.

B. Current Plans

CORE IMPORT AND EXPORT PROCESSING

The FTD is well into the process of conducting a total re-engineering of the current press release process. The goal is to accomplish the entire press release process in a networked microcomputer environment with increased automation and the implementation of new methodologies by the fourth quarter of 1996.

Current projections have this process being in place by November 1996 and the initialization of the new system with production processing in/with January 1997 statistics. The import and export databanks are in the redesign process with a complete migration to the microcomputer environment being completed in the fourth quarter of 1996. All division processing, other than large volume tape copy processing, will be fully migrated to the alternate processing environment and operation in production mode by the fourth quarter of 1996.

Benefits and performance measures: The primary goal of this migratory effort is to move from the centralized Unisys mainframe environment, that emphasizes macro tabulations generated by a programming staff, to a client/server platform that enables the implementation of developing technologies and expands user access and capabilities. As our migration efforts progress and core processing is transferred into the distributed networked client server environment, we will incrementally free ourselves of the dependency on Unisys to meet our critical deadlines and rely on the results of our migration efforts to provide a risk-free production environment. The B/CA completed in 1994 showed the adopted methodology to be the least-cost alternative given the requirement to migrate.

LOCAL AREA NETWORK TECHNOLOGY

The Bureau's TCO has installed a twisted pair cable plant, in parallel with the current thinnet environment, using the industrial and organizational standards for operating systems and application software that conform to ISO and CCITT Communications Standards for OSI (see Telecommunications Concept CB-IT-94-02-E). This twisted-pair installation is not operational at this time due to budgetary limitations although there are indications that this situation will soon be alleviated. At that time the division will be able to make efficient use of the increased capability and throughput offered by twisted pair and fiber optic technology.

The Puerto Rico LAN system will be converted to the Novell NOS in the first quarter of FY 1997.

Benefits and performance measures: The basic nature of current foreign trade data compels the requirement for a shared system that will serve analytical needs and allow for interactive access to data. The needs of the public and private sector user communities are of such a dynamic nature that a highly flexible and adaptive environment must be established in order for the FTD to respond in a proactive as well as reactive manner.

The implementation of the installed twisted pair technology will tremendously improve the data handling capacity of our local area/communications network to accommodate the increased traffic resulting from our expanded end-user interactive analytical capability, the migration to an alternative processing environment, as well as our office automation efforts.

CD-ROM TECHNOLOGY

Evolving technologies have made it easier and cheaper to produce CD-ROM's. Once a master is created, it costs very little to produce each additional copy. Current CD-ROM technology satisfies our customer's as well as internal demands for more useful and flexible data products. The extension and enhanced implementation of this technology is planned in cooperation with ACSD.

We have implemented the capability to produce one-off CD-ROMs in-house. We utilize this technology to expand the existing data sharing, transfer, and storage mechanisms available to the staff of the FTD for the internal processing of and access to foreign trade statistics. This technology is also utilized to evaluate and develop proposed CD-ROM products for Census Bureau release to the public and private user community through ACSD.

INTERNET

Further expansion of the offerings currently made available by the division to our customers on the Internet audience are planned given the projected increase in Internet interest. We will be especially concentrating in the areas of concern as expressed by the Bureau’s Strategic Planning process and continuing to cooperate, through the part-time allocation of FTD staff, with the Bureau’s DADS staff.

The FTD is currently working on the following projects related to the provision of foreign trade data to the Internet audience(s):

- A complete revision and redesign of "The Guide to Foreign Trade Statistics."
- A system of providing rapid topical information for trade items of current interest with the media and public sector, i.e., the current debate over automobiles and related trade with Japan.
- The provision of district and port total files available on a monthly basis.
- Provide the HSTUSA 1-10 (Computer Printout of Selected Foreign Trade Commodities) list available for current and projected monthly subscribers.

- Provide rapid ad hoc HSTUSA 1-10 (Computer Printout of Selected Foreign Trade Commodities) report generation capability and implement a charging methodology and/or algorithm that would allow the use of credit cards.

- explore the options available to facilitate the creation of an FTD Web server.

In compliance with issued guidelines, the FTD will exert efforts toward a viable Internet process in a prudent manner allocating resources as they become available. We will continue to rely upon the Information Technology Directorate to maintain and manage the site servers, fire walls, and day-to-day routine requests for technical support.

ELECTRONIC DATA INTERCHANGE

AUTOMATED EXPORTER REPORTING PROGRAM (AERP): Further expansion of the telecommunications capability integral to this environment will be investigated in order to handle the projected increase in EDI volume. We will be especially concentrating in the areas of telecommunications and microcomputer technology that will provide us the following:

- Complete and total system automation to provide twenty-four hour availability to system users.

- A computer controlled gateway approach to handle and route incoming traffic to the appropriately configured hardware device.

- A centralized modem bank to provide support for all transmission protocols and multiple call handling capability for callers requiring similar hardware and software configurations in a multi-call environment.

- Centralized and shared access data storage for all received data files.

- Multi-tasking capability for processing and receiving data simultaneously.

We are investigating, with the assistance of the Bureau's TCO, the feasibility of obtaining a single source vendor to provide T-1 telecommunications support for our FTD - U.S. Customs Service link. This will provide a greater continuity of operations and an environment wherein problem resolution can be accomplished through a single point of contact.

Benefits and performance measures: The centralization and consolidation of existing Canada-related operations will accomplished by the development of a distributed, networked microcomputer based system facilitating the migration away from the Unisys mainframe and allowing for the rapid implementation of program changes and modifications. This system will provide the capability to store the incoming data, all interim files, the final processed data, and all associated production software systems within the FTD. Additionally, this concept will

incorporate a telecommunications (T-1) link to Statistics Canada, a communications link through the ACS for internal data analysis, and a SDLC link to facilitate data transfers between the FTD and U.S. Customs Service.

AUTOMATED COMMERCIAL SYSTEM (ACS): Customs has begun the process of redesigning ACS. The Automated Commercial Environment (ACE) is the future automated international trade information system being developed by the Customs Service for ensuring the compliance of individuals, businesses, and governments with the trade laws and regulations of the United States. To date, Customs has released the ACE Strategic Information Management Plan (SIMPlan) and the ACE User Requirements Document. The entire redesign is scheduled for completion by October 1998. The first prototype partially under ACE will be the National Customs Automation Prototype (NCAP) scheduled to begin January 1997. Under ACE Customs intends to use both a mainframe and a client server environment. The ACE user interface will execute on PC Workstations within the Microsoft Windows environment. ACE will build its external system interfaces using the DCE approach developed by the Open System Foundation (OSF) Incorporated.

ACE will require Census to rewrite all programs currently on ACS. As we do currently, we will write and maintain all Census programs on ACE.

AUTOMATED EXPORTER SYSTEM (AES)

AES is currently being implemented for vessel shipments at the ports of Baltimore, MD; Norfolk, VA: Charleston, SC: Houston/Galveston/Texas City, TX; and Los Angeles/Long Beach, CA. Both Customs and Census as well as representatives from the trade community have begun evaluating AES. After the evaluation is completed, AES will be expanded to other ports. Work is beginning on the development of AES for the air and overland environment. A post-departure filing program, AES-PASS, is also being developed as a feature of AES. AES-PASS will be available to all established exporters who pass certification and meet government standards.

Currently Census has four full-time employees working at Customs Headquarters on AES, two programmers and two analysts. The programmers have designed, developed, and written the Census edit, extraction, and update programs that run on AES for the vessel environment. Future Census/AES programs to be written include the 4-day delinquent program, the HS kick-off program, and AES-PASS programs as well as modifications for air and overland. Foreign Trade is currently the only other government agency to write and maintain their own programs on AES. We will always have programmers assigned to writing and maintaining our programs on AES.

Benefits and performance measures: Census sees several benefits to the AES as opposed to the current paper environment, including improvements in the quality of published statistics and the coverage. Current Bureau of the Census edits are built into the AES so exporters, carriers, and forwarders will effectively be editing data as they are entered into the system. Any erroneous data entered into the system will have to be corrected prior to acceptance. With export

information coming separately from exporters, forwarders, and carriers being matched by the U.S. Customs Service, the potential for the omission of cargo from the manifest to avoid fines will be greatly reduced. Automating the matching of Shipper's Export Declarations (SEDs) to the manifest will ensure that all required SEDs are filed on a timely basis. AES will eliminate the tremendous burden exporters, forwarders, and carriers now incur in completing and filing thousands of paper documents monthly.

This effort will improve and expand the quality of published export statistics. As a result, the AES will have a direct and dramatic impact upon the economy in two areas. Primarily, exports will expand as the competitiveness of U.S. companies improves because of improved data for export marketing and pricing strategies, better identification of export marketing opportunities, reduced documentation costs for exports, and acceleration of the export process. Secondarily, economic policy decisions of Federal, state, and local agencies will be based upon full and accurate accounting of the export trade.

DATA PREPARATION DIVISION (DPD) AUTOMATION

Current proposals by the Computer-Assisted Data Entry (CADE) Group (composed of the Census Bureau's CASIC Staff, Data Systems Branch (DSB) in DPD, and Census Bureau line divisions) include plans for the replacement of the Tartan key entry system with Key Entry III (a distributed networked microcomputer environment consisting of databases, microcomputer key workstations, and microcomputer file and shared storage servers in client server configuration). With this planned replacement, all FTD related data capture processes will be accomplished under Key Entry III with the FTD providing the required resources to permit the clerical unit to interface directly with the data keyed under the new Key Entry III program.

The FTD plans to implement relational database technology and microcomputer systems in a distributed networked environment for the clerical operation. The implementation of an automated approach to defective-record processing, post-key clerical review, post-edit review, high value review, and automated work flow control is scheduled for the second quarter of FY 1996.

Additionally the FTD will be evaluating the impact and benefits of the new KODAK imaging systems. Efforts in this area will allow the division to participate in the mainstream Census Bureau imaging plans, thereby gaining increased use of the Microfilm Access Devices (MADs). Incorporation of these devices and technology with database update is anticipated to be extremely beneficial to future operations.

Benefits and performance measures: The FTD has eliminated the printing of over 25,000 pages of reference material each month and have saved the clerical time required to update the hard copy materials on everyone's desk. This implementation will preclude the transfer of paper based data and references between units thereby increasing the volume of records processed per staff member per day. Informational database access and update will available to online users in

the units and all clerical units would realize increases in efficiency and productivity from online access to much of the coding materials, including HS Schedule B books, editmasters, and value tables.

PUERTO RICO TRADE DATA STAFF (PRTDS)

The FTD will upgrade all microcomputer systems, i.e., workstations and server(s), in compliance with the Bureau's existing Microcomputer Standard.

The network operating system will be converted to Novell to coincide with Bureau implementations and all key entry operations will be converted to KeyEntry III. Database processes will be converted to Clipper. The current support contract covering hardware will be retained.

Benefits and performance measures: New technology will improve the performance and reliability of the overall operation. The planned upgrades for the system will create a more secure processing environment and take advantage of economies of scale allowed by utilization of open systems concepts and hardware and software offered by Bureau supported projects. The implementation of the Novell NOS and the KeyEntry III system will bring FTD's Puerto Rico operation into line with current Bureau movements toward common platforms and systems.

CONVERSION TO WINDOWS DESKTOP OPERATING SYSTEM

In an effort to mirror current trends at the bureau for open systems implementations and the "corporate" approach to overall technical operations, Windows 95 has been selected as the divisions next standard desktop operating system. Implementation is planned for fourth quarter FY 1996.

Benefits and performance measures: The parallel testing of multiple desktop operating system demonstrated the benefits of singular facets of each software package tested. Windows provided an extremely effective and friendly user interface while OS/2 provided a high degree of processing power encapsulated within it's 32-bit operating system. With Windows 95's friendly user interface integrated with 32-bit extensions, we feel our processing environment will be significantly enhanced.

CONVERSION TO SAS

In an effort to mirror current trends at the bureau for open systems implementations and the "corporate" approach to overall technical operations, SAS has been accepted as the divisions next standard statistical analysis tool. Research will be conducted into the use of SAS as a programming tool for production and ad hoc processing tasks. A significant number of subject matter, analytical, and technical staff will be offered SAS training to minimize the expected steep learning curve. Due to the relative infancy of SAS considerations, no firm Implementation

Schedule has yet been developed for the SAS conversion but it is anticipated to commence in the second quarter of FY 1996.

4. Implementation Schedule

CORE IMPORT AND EXPORT PROCESSING			
Milestone Description		Planned Date	Status
Requirements Definition		1/1/93	complete
Functional Requirements		3/1/93	complete
Design/development Specifications		5/1/93	complete
Initiation of SAS Training for Appropriate Staff		7/1/93	ongoing
Development of SAS Import Datasets		8/1/93	complete
Development of SAS Export Datasets		8/1/93	ongoing
Assembly of Production Environment Development Team		8/1/93	complete
Assembly of SAS Production Team		8/1/93	complete
Testing of SAS Capability for Replacement of Existing Analytical Tools		9/1/93	complete
Import Cut Processing Conversion Finalized		11/1/93	complete
B/CA (Unisys Migration) to Assoc. Director for IT		6/15/94	complete
RI (Unisys Migration) to Assoc. Director for IT		6/94	complete
RI Approved by Associate Director for IT		8/94	complete
Initiate Procurement Efforts (first year - 1994)		8/94	complete
Import Closeout Processing Conversion Finalized		9/94	ongoing
Equipment Delivered (first year - 1994)		9/94	complete
Equipment Installed (first year - 1994)		7/10/94	complete
Export Edit Redesign Completed		10/1/94	complete
Export Cut Processing Conversion Finalized		11/1/94	complete
Export Closeout Processing Conversion Finalized		4/1/95	ongoing
Conduct Acquisition	Year 2	10/1/95	complete
	Year 3	10/1/96	
	Year 4	10/1/97	
	Year 5	10/1/98	

CORE IMPORT AND EXPORT PROCESSING			
Milestone Description		Planned Date	Status
Equipment Delivered	Year 2	11/15/95	complete
	Year 3	11/15/96	
	Year 4	11/15/97	
	Year 5	11/15/98	
Equipment Installed	Year 2	12/10/95	complete
	Year 3	12/10/96	
	Year 4	12/10/97	
	Year 5	12/10/98	
Tape Copy Conversion & Large Scale Printing Conversion		6/1/96	
System Milestone, Success, and Effectiveness Evaluation		1/1/97	

LOCAL AREA NETWORK TECHNOLOGY		
Milestone Description	**Planned Date**	**Status**
Conversion to the Novell Network Operating System	7/1/93	complete
Requirements Definition	8/1/93	complete
Functional Requirements	8/1/93	complete
Prepare/Review/Approve Requirements	9/1/93	complete
Staffing	10/1/93	complete
Training	11/1/93	complete
Design and Development Specifications (updated)	2/1/94	complete
COTS Software Evaluation	2/1/94	complete
Technology Research & Evaluation Efforts	2/1/94	complete
Design and Development	3/1/94	complete
Prototype	6/1/94	complete
Testing and Evaluation	7/1/94	complete
Prepare/Review/Approve Acquisition Documents	10/1/94	complete

LOCAL AREA NETWORK TECHNOLOGY		
Milestone Description	**Planned Date**	**Status**
Conduct Acquisitions	1/1/95	partial
Deliveries of Hardware and Software	1/1/95	partial
Equipment Installed	3/15/95	partial
Conversion and Implementation of Twisted Pair Technology	6/1/95	delayed

CD-ROM TECHNOLOGY		
Milestone Description	**Planned Date**	**Status**
Requirements Definition	5/1/93	complete
Functional Requirements	5/1/93	complete
Prepare/Review/Approve Requirements	6/23/93	complete
Automation Team Established	9/1/93	complete
Design and Development Specifications	1/1/94	complete
Design and Development	2/1/94	complete
COTS Software Evaluation	3/1/94	complete
Prototype	5/1/94	complete
Testing and Evaluation	5/15/94	complete
Staffing and Training	6/1/94	complete
Prepare/Review/Approve Acquisition Documentation	11/1/94	complete
Conduct Acquisition	2/1/96	complete
Equipment Delivered	3/15/96	
Equipment Installed	3/17/96	
Implementation Testing and Conversion	3/17/96	

INTERNET		
Milestone Description	**Planned Date**	**Status**
Technology Research & Evaluation Efforts	1/1/94	ongoing
Requirements Definition	1/1/94	complete
Functional Requirements	1/1/94	complete
Prepare/Review/Approve Requirements	2/1/94	complete
Design and Development Specifications	3/1/94	complete
Design and Development	3/1/94	complete
Prototype	3/1/94	complete
COTS Software Testing and Evaluation	3/1/94	ongoing
Production and Implementation	4/1/94	complete
Staffing	4/1/94	complete
Training	4/1/94	complete
Prepare/Review/Approve Acquisition Documentation	7/1/94	complete
Conduct Acquisition	2/27/96	complete
Deliveries of Equipment and Software	4/1/96	

ELECTRONIC DATA INTERCHANGE (EDI) [TELECOMMUNICATIONS SYSTEM IMPLEMENTATION]		
Milestone Description	**Planned Date**	**Status**
Requirements Definition	1/1/95	complete
Functional Requirements	1/15/95	complete
Prepare/Review/Approve Requirements	2/1/95	complete
Design and Development Specifications	2/15/95	complete
System Design and Configuration	3/1/95	complete
Prototype	3/15/95	complete
Testing and Evaluation	4/1/95	complete

ELECTRONIC DATA INTERCHANGE (EDI) [TELECOMMUNICATIONS SYSTEM IMPLEMENTATION]		
Milestone Description	**Planned Date**	**Status**
COTS Software Evaluation	4/1/95	complete
Staffing and Training	4/1/95	complete
Prepare/Review/Approve Acquisition Documentation	6/15/95	complete
Conduct Acquisition	6/1/96	
Deliveries of Equipment and Software	7/15/96	
Equipment Installed	8/1/96	

AUTOMATED EXPORT SYSTEM (AES)			
Milestone Description		Planned Date	Status
Requirements Definition		10/1/94	complete
Functional Requirements		11/1/94	complete
Design/Development Specifications		1/1/95	complete
Prepare/Review/Approve Requirements		2/1/95	complete
Assembly of Production Environment Development Team		3/15/95	complete
Staffing		3/15/95	complete
Training		5/1/95	ongoing
Prototype		5/1/95	complete
Testing and Evaluation		8/1/95	complete
Prepare/Review/Approve Acquisition Documentation		8/15/95	complete
Conduct Acquisition (first year - 1995)		9/15/95	delayed
Equipment Delivered (first year - 1995)		10/1/95	delayed
Equipment Installed (first year - 1995)		11/15/95	delayed
Production and Implementation		1/1/96	delayed
Conduct Acquisition	Year 2	10/1/96	
	Year 3	10/1/97	

AUTOMATED EXPORT SYSTEM (AES)			
Milestone Description		Planned Date	Status
Equipment Delivered	Year 2	10/1/96	
	Year 3	10/1/97	
Equipment Installed	Year 2	10/1/96	
	Year 3	10/1/97	
System Milestone, Success, and Effectiveness Evaluation		1/1/98	

DATA PREPARATION DIVISION (DPD) AUTOMATION		
Milestone Description	**Planned Date**	**Status**
Requirements Definition	5/1/93	complete
Functional Requirements	5/1/93	complete
Prepare/Review/Approve Requirements	6/1/93	complete
Automation Team Established	6/15/93	complete
Staffing	7/1/93	complete
Training	8/1/93	complete
Design and Development Specifications (updated)	8/15/94	complete
Prototype	9/1/94	complete
Testing and Evaluation	11/1/94	complete
Prepare/Review/Approve Acquisition Documentation	11/1/94	complete
Initiate Procurement Efforts	1/1/95	delayed
Equipment Delivered	3/1/95	delayed
Equipment Installed	4/1/95	delayed
Implementation Testing and Conversion	4/2/95	delayed

PUERTO RICO TRADE DATA STAFF (DPD)		
Milestone Description	**Planned Date**	**Status**
Requirements Definition	5/1/93	complete

PUERTO RICO TRADE DATA STAFF (DPD)		
Milestone Description	**Planned Date**	**Status**
Functional Requirements	5/1/93	complete
Prepare/Review/Approve Requirements	6/1/93	complete
Staffing	6/10/93	complete
Training	6/15/93	complete
Automation Support Team Established	6/15/93	complete
Design and Development Specifications (updated)	8/15/94	complete
Prototype	9/1/94	complete
Testing and Evaluation	11/1/94	complete
Prepare/Review/Approve Acquisition Documentation	11/1/94	complete
Initiate Procurement Efforts	3/1/96	
Equipment Delivered	4/15/96	
Equipment Installed	4/30/96	
Implementation Testing and Conversion	5/15/96	

CONVERSION TO WINDOWS		
Milestone Description	**Planned Date**	**Status**
Requirements Definition	10/1/94	complete
Functional Requirements	10/1/94	complete
Prepare/Review/Approve Requirements	10/1/94	complete
Automation Support Team Established	10/15/95	complete
Design and Development Specifications (updated)	3/15/95	complete
Prototype	4/1/95	complete
Testing and Evaluation	7/1/95	complete
Prepare/Review/Approve Acquisition Documentation	10/1/95	complete
Initiate Procurement Efforts	1/1/96	partial
Equipment and Software Delivered	3/1/96	

Equipment Installed	4/1/96	
Implementation Testing and Conversion	4/2/96	

5. Acquisitions

ACTUAL AND PLANNED ACQUISITIONS			
Type of Equipment	**Planned FY 1996**	**Planned FY 1997**	**Planned FY 1998**
Network File Servers	5	5	5
Network CD-ROM Server	0	0	2
Personal Computers	20	20	20
Tape Drives (4mm Autoloader)	0	0	1
Tape drives (4mm DAT)	0	5	0
Laser printers, B/W	3	3	3
Disk storage units (> 2GB)	30	30	30
CD-ROM Reader, External	5	5	5
CD-ROM Recording Systems	0	0	0